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15 January 1985

TO: Committee on Science and Technology
House of Representatives
2321 Rayburn House Office Building
Washington, D. C. 20515

Attention: Mr. John Holmfeld
Science Policy Staff

Enclosed is a copy of a report you
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If I can be of further assistance, please
call me.

Liaison Division

Enclosure

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**COMMITTEE OF SOVIET SCIENTISTS
FOR PEACE AGAINST NUCLEAR THREAT**

**STRATEGIC
AND INTERNATIONAL-POLITICAL CONSEQUENCES
OF CREATING A SPACE-BASED ANTI-MISSILE SYSTEM
USING DIRECTED ENERGY WEAPONS**

**MOSCOW
1984**

This Report has been prepared by the Working Group of the Committee of Soviet Scientists for Peace, Against Nuclear Threat consisting of the Heads of Groups: Deputy Chairman of the Committee of Soviet Scientists, Academician R.Z. Sagdeyev (Director of the Institute of Space Research of the USSR Academy of Sciences), Deputy Chairman of the Committee of Soviet Scientists A.A. Kokoshin, D.Sc. (History), Deputy Director of the Institute of USA and Canada Studies of the USSR Academy of Sciences;

experts: A.G. Arbatov, D.Sc. (History), Sector Chief at the Institute of the World Economy and International Relations of the USSR Academy of Sciences; A.A. Vasilyev, Cand.Sc. (Technology), Department Chief at the Institute of USA and Canada Studies of the USSR Academy of Sciences; V.I. Shevchenko, D.Sc. (Physics and Mathematics), Deputy Director of the Institute of Space Research of the USSR Academy of Sciences; O.F. Prilutsky, Cand.Sc. (Physics and Mathematics), Department Head at the Institute of Space Research of the USSR Academy of Sciences; V.G. Rodin, Chief Project Designer of the same Institute; S.N. Rodionov, Cand.Sc. (Physics and Mathematics), Senior Research Associate of the Institute; and R.R. Nazirov, Cand.Sc. (Technology) Senior Research Associate of the Institute.

A mathematical model for studying the scientific and technical aspects of the issue under review (Appendix I) has been worked out by R.R. Nazirov.

In studying various problems linked with the subjects of the Report the Working Group used the services of consultants, Professor N.A. Lomov, Colonel-General, Rtd., and Professor M.A. Milshtein, Lieutenant-General, Rtd.

W/ file ref

THE NEW YORK TIMES, TUESDAY, JANUARY 2, 1983

Soviet Scientific Paper Calls U.S. Space-Based Defense Vulnerable

By SETH MYDANS

Special to The New York Times

MOSCOW, Jan. 7 — A Soviet scientific report says that the space-based defense system proposed by President Reagan would disturb the strategic balance, set off a chain reaction of countermeasures and ultimately make nuclear war more possible.

The 42-page report, obtained from Soviet sources, says much of the so-called "Star Wars" defense system appears technically feasible, though immensely costly. It says that the testing and deployment of even parts of the system could complicate the prospects for future arms accords.

Mr. Reagan has said that the plan, known as the Strategic Defense Initiative, is aimed canceling out the threat of offensive missiles and thus making nuclear war obsolete. The program is a prime concern of the Soviet Union at the talks in Geneva between Secretary of State George P. Shultz and Foreign Minister Andrei A. Gromyko.

Addressed to the West

The report, which was obtained in an English-language version from the Research Institute on the United States and Canada, combines technical analysis and political argument.

It is unclear for whom the report was originally prepared, but the English-language version, which carries a statement of copyright, appears aimed at a Western audience.

Rather than making nuclear war obsolete, it says, the American plan "will certainly increase the danger of a first (pre-emptive) strike and the probability of making wrong decisions in a crisis situation."

For that reason, it says, strategic stability would be diminished even though rough parity might be preserved in strategic armaments.

In addition, it says, "the deployment of strategic 'defensive weapons' is certain to set off a chain reaction in making more modern weapons systems."

This, it says, would make the strategic balance more complex and uncertain.

of up to 100 seconds, plot their coordinates at an accuracy of 10 to the minus 7 rads and forecast the movement of each target for the period necessary for destruction," the report says.

"The deployment of the 18-station Shermans will require at least 120 shuttle missions to polar orbit. It is noted that such a system is capable of destroying 15 missiles in 100 seconds (with the simultaneous launching of ICBM's and two operating stations over the launching area)."

The Soviet scientists contend that such a space-based defense system would not be invulnerable, and the re-

port lists the countermeasures that would be needed, thus intensifying the arms race.

It says that the proposed space stations could be put out of action by small ballistic missiles, orbiting space mines, high-power ground-based lasers, or clouds of chaff.

Dummy missile launchings could mislead the space weaponry, causing it to expend its stocks of fuel, the report says, adding that it is precisely this vulnerability that adds to the destabilizing nature of the system.

The report says that a program to counter the space system would

produce greater asymmetry between the strategic forces of the two of making them more difficult to compare in arms agreements.

"Asymmetry may prove even more considerable if we take into account potential anti-Sherman systems, counter-anti-Sherman systems," the report says.

All of this, it adds, would pose dangers to civilian populations.

"Improvements in offensive weapons aimed at penetrating the defense will lead to a considerable increase in potential casualties in the event of war," the Soviet report says.

of strategic defense systems and deployment

ing more modern weapons systems." This, it says, would make the strategic balance more complex and introduce a degree of uncertainty into political and military decision-making.

First-Strike Potential Seen

The report says that versions of the space defense system now being discussed appear intended for use against ground targets as well as targets in space, and could therefore be employed for a first strike.

Using the acronym Sbams, for space-based antimissile system, the report says:

"We have reason to regard the prospective United States Sbams as a means of insuring a first-strike capability. The assertions coming from the Reagan Administration that the new antimissile defense systems spell salvation from nuclear missiles for mankind are perhaps the greatest ever deception of our time."

The report, which is dated 1984, notes that the United States has declined to renounce first use of nuclear weapons. The text was prepared by a group calling itself the Committee of Soviet Scientists for Peace, Against the Nuclear Threat, and is titled "A Space-Based Antimissile System With Directed Energy Weapons: Strategic, Legal and Political Implications."

Technical Aspects Described

The group was headed by Roald Z. Sagdeyev, director of the Space Research Institute of the Academy of Sciences, and Andrei A. Kokoshin, deputy director of the United States Institute.

Dr. Sagdeyev, 52 years old, is a nuclear physicist who has headed the space institute since its founding in 1973. Dr. Kokoshin, 39, combines foreign policy expertise with an engineering background, which he acquired at the Bauman Higher Technical School, the top Soviet engineering school.

Using published American information, the report describes scientific and technical details of the space-based defense system, in which, it says, "laser beam space weapons can hit a target thousands of kilometers away within about a hundredth of a second in which the latter can move fore just a few dozen meters."

The American plan is said to "envision 18 combat stations placed at three polar orbits with a hit range of approximately 5,000 kilometers."

"The Sbams should be able to track about 1,000 targets within a time limit